

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                                  |   |                                |
|----------------------------------|---|--------------------------------|
| In re Patent Application of:     | : |                                |
| Euijoon Yoon ea al.              | : | Examiner: MALDONADO, JULIO J   |
|                                  | : |                                |
| Serial No.: 10/563,854           | : | Group Art Unit: 2863           |
|                                  | : |                                |
| Filed: June 9, 2006              | : | Attorney Docket No.: 504478.24 |
|                                  | : |                                |
| For: GROWTH METHOD FOR NITRIDE   | : |                                |
| SEMICONDUCTOR EPITAXIAL LAYERS:  | : | Customer No.: 27128            |
|                                  | : |                                |
|                                  | : | Confirmation No.: 3823         |
|                                  | : |                                |
| Last Office Action: June 9, 2010 | : |                                |

DECLARATION OF EUIJOON YOON

UNDER 37 C.F.R. 41.132

I, Euijoon YOON, hereby declare as follows:

1. I earned a Doctorate Degree in Electronic Materials at the Massachusetts Institute of Technology in 1990. I am currently and have been for the last fifteen (15) years employed at Seoul National University as a professor after I had worked at AT&T Bell Laboratories as a postdoctoral Member of Technical Staff from 1990 to 1992.

2. My research has focused and centered on the epitaxial growth of semiconductor materials, including Si-based group IV alloys, and III-V compound semiconductors such as InGaAsP and InGaN, and materials characterizations by structural, electronic, and optical methods. Recently, an extensive study has been made to determine the monolayer-scale compositional profiles of various heterostructural interfaces by a combined method of grazing incidence x-ray reflectivity and photoluminescence (PL). The in-situ monitoring and control of the growth process of highly low-dimensional structures such as quantum wells and quantum dots has been studied by means of optical diagnostic tools during MOCVD growth.

3. I am one of the two (2) co-inventors and have been involved in the development of the subject matter claimed in U.S. Patent Application S/N. 10/563,854, filed June 9, 2006.

4. I understand from discussion with legal counsel handling prosecution of the aforementioned

U.S. Patent Application that the Examiner has found that rejection raised on June 9, 2010 has not been overcome, because he considers that laser beam would be utilized for the instant invention in the growth chamber to increase the temperature of the semiconductor layers recited in the present patent claims, as disclosed in cited references 1 and 2.

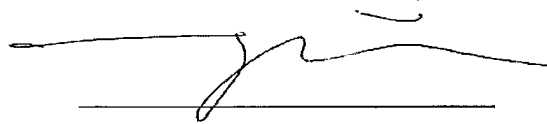
5. I make this Declaration in support of the patentability of the claims of U.S. Patent Application S/N. 10/563,854.

6. From an epitaxial growth of semiconductor materials standpoint, it is my opinion that laser beam would not be used in the growth chamber recited in the present claim to increase the temperature of the nitride semiconductor epitaxial layers. From my reading of the prior art cited by the USPTO in the examination of the application and further to my knowledge, I find no suggestion that the laser beam in the cited references would result in raising the temperate of the adjacent semiconductor layers at the same time as now disclosed and claimed in the application.

7. All statements made herein of my own knowledge are true and all statements made herein on information and belief are believed to be true. This Declaration is made with the understanding that any willful false statements and the like so made are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the application or any patent issuing thereon.

September 8, 2010

Date



Euijoon YOON